

In the Claims:

Please cancel claims 1, 2, 5, 7, 8 and 11, without prejudice.

Please add new claims 13 and 14 and amend claims 3, 4, 6, 9, 10 and 12 as follows:

1-2. (Cancelled)

3. (Currently Amended) A write precompensation amount setting method, comprising
setting an optimum write precompensation amount at a low temperature according to respective head characteristics with an electric current used at an ordinary temperature, and at an irregular electric current~~The write precompensation amount setting method according to claim 1,~~
wherein the irregular electric current is an electric current lower than the electric current used at the ordinary temperature.

4. (Currently Amended) A write precompensation amount setting method, comprising
setting an optimum write precompensation amount at a low temperature according to respective head characteristics with an electric current used at an ordinary

temperature, and at an irregular electric current.~~The write precompensation amount setting method according to claim 1, further comprising~~

obtaining a precompensation amount of each head with an electric current lower than the electric current used at the ordinary temperature, and

determining a write precompensation amount at the low temperature according to the obtained precompensation amount.

5. (Cancelled)

6. (Currently Amended) The write precompensation amount setting method according to ~~claim 1~~claim 3, wherein

the head characteristics are a non-linear transition shift (NLTS) characteristic.

7-8. (Cancelled)

9. (Currently Amended) A write precompensation amount setting apparatus, comprising:

a detecting unit detecting respective head characteristics with an electric current used at an ordinary temperature, and an irregular electric current; and

a setting unit setting an optimum write precompensation amount at a low temperature according to the head characteristics detected by said detecting unit~~The write precompensation amount setting apparatus according to claim 7,~~

wherein the irregular electric current is an electric current lower than the electric current used at the ordinary temperature.

10. (Currently Amended) A write precompensation amount setting apparatus, comprising:

a detecting unit detecting respective head characteristics with an electric current used at an ordinary temperature, and an irregular electric current; and

a setting unit setting an optimum write precompensation amount at a low temperature according to the head characteristics detected by said detecting unit~~The write precompensation amount setting apparatus according to claim 7,~~

wherein a precompensation amount of each head with an electric current lower than the electric current used at the ordinary temperature is obtained, and a write precompensation amount at the low temperature is determined according to the obtained precompensation amount.

11. (Cancelled)

12. (Currently Amended) The write precompensation amount setting apparatus according to ~~claim 7~~claim 9, wherein

the head characteristics are a non-linear transition shift (NLTS) characteristic.

13. (New) The write precompensation amount setting apparatus according to claim 10, wherein

the head characteristics are a non-linear transition shift (NLTS) characteristic.

14. (New) The write precompensation amount setting method according to claim 4, wherein

the head characteristics are a non-linear transition shift (NLTS) characteristic.